

Title (en)  
ANTENNA RADIATION ELEMENT AND ANTENNA

Title (de)  
ANTENNENSTRAHLUNGSELEMENT UND ANTENNE

Title (fr)  
ÉLÉMENT DE RAYONNEMENT D'ANTENNE ET ANTENNE

Publication  
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Application  
**EP 20164590 A 20130627**

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Abstract (en)

[origin: EP3007275A1] The present invention discloses an antenna radiating element and an antenna, where the antenna radiating element includes a pair of crosswise disposed dipoles and parasitic element assemblies; the parasitic element assembly is disposed in an included angle formed by two neighboring dipole arms of the crosswise disposed dipoles; the parasitic element assembly is fastened to the dipole; and a radiation signal transmitted by the dipole is reflected and converged by using the parasitic element assembly. In embodiments of the present invention, an antenna radiating element can be formed by additionally disposing parasitic element assemblies around a pair of crosswise disposed dipoles. The antenna radiating element has a very simple structure, may be directly formed by sheet metal parts, and is convenient to process and manufacture. In the embodiments of the present invention, the parasitic element assembly performs secondary reflection and convergence on a radiation signal transmitted by the dipole, so as to generate new radiation, which helps expand a caliber of an original dipole, thereby converging a beam width of an entire antenna on a horizontal plane. This achieves an effect of reducing a volume of the entire antenna, the antenna has a simple structure and a light weight, and therefore both production costs and maintenance costs are reduced.

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Cited by  
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